

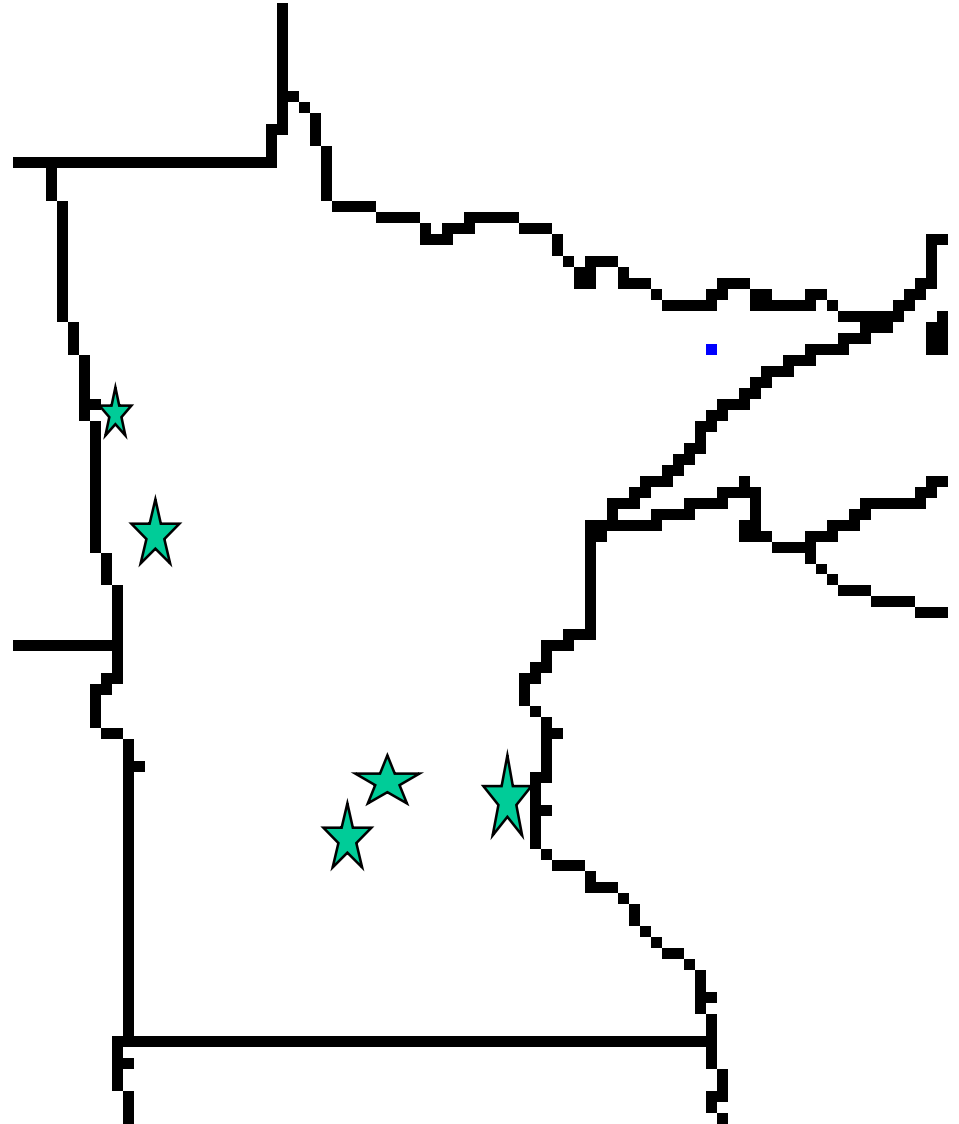
Energy Code Enforcement Grants to Five Minnesota Jurisdictions

Bruce D. Nelson, P.E.
Minnesota Energy Office

Energy Code Enforcement Grants

Minnesota cities
receiving grants in
2000:

- Detroit Lakes
- East Grand Forks
- Hutchinson
- St. Cloud
- Woodbury



Quarterly reports

- STATUS of energy code compliance
- COMPLAINTS about energy code
- RECOMMENDATIONS for changes in the code
- FEEDBACK on of energy code training
- TIME needed for enforcement of the new code provisions

Building envelope

- Attention to detail a problem
 - outlet boxes (esp. proper sealing gasketed boxes)
 - wind wash
 - rim joist insulation
- Window U-factors are average between 0.31 and 0.35
- Door U-factor between 0.44 and 0.6

Ventilation systems

- Owners are turning off ventilation systems
- Many builders think the code requires air-to-air heat exchangers
- Many people question the exhaust-only ventilation system
- There is a need for equipment providing combination heating & ventilation

Successes

- “The energy code is fast becoming the standard to which to build in our community
- Insulation contractors & general contractors are knowledgeable about the code
- Builders are becoming accustomed to energy code requirements and are planning ahead to meet these requirements

Successes, cont.

- Builders are starting to recognize most of the energy code requirements and how these requirements interact with the building as a whole
- Contractors are anxious to comply with the energy code -- they are willing to listen and learn
- For the most part, our inspectors are requiring very little correction work to obtain compliance

Training needs

- Mechanical contractors need training
- Many clients believe that a larger furnace & ventilating system is better
- Client O & M of new homes will be a significant problem
- Customers are constantly questioning the methodology of having an airtight seal on the structure

Code enforcement process

- More time spent in plan review makes enforcement easier
- HVAC final inspections take 20 to 30 minutes longer, and the failure rate is high requiring reinspection
- Frustration is expressed with inconsistent enforcement between communities

Other parts of the building code

- The code should:
 - better address exterior water leaks
 - require crawl spaces to be sealed
 - require a capillary break between the footing and foundation wall
 - require sump baskets to be sealed

General

- Builders had initially incorrectly assumed that under the Category 1 “alternative” they would be able to build a standard home and just add an exhaust system
- Builders are looking for hard data on what kind of energy savings to expect

General, cont.

- The licensing of mechanical contractors is a great need.
- Enforcement of HVAC regulations is made very difficult because HVAC contractors are neither required to be qualified nor obtain continuing education.

We are learning:

- Level of support for the energy code in both metro & rural regions
- What kind of education is needed & who are the critical target audiences
- Where the code language needs clarification
- Where code officials need assistance

Energy Code Enforcement Grants to Five Minnesota Jurisdictions

- Grant RFP to be issued again in Fall 2001
- This project made possible with a grant received from the U.S. DOE Office of Building Technology, State and Community programs.